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MORTALITY RISK STRATIFICATION IN CORONARY ANGIOGRAPHY PATIENTS USING THE INTERMOUNTAIN RISK SCORE IN A TWO STAGE APPROACH

ACC Moderated Poster Contributions
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Background: The Intermountain Risk Score (IMRS) is an excellent predictor for 1-year mortality, but not all patients receive the necessary laboratory tests (CBC and BMP) for its computation. Here we examine a two stage approach where patients are first screened using the well established Framingham risk score (FRS) and then for those with moderate/high FRS values the IMRS is generated.

Methods: Two cohorts were studied: 1) patients undergoing coronary angiography enrolled in the Intermountain Heart Collaborative Study (n=8624), and 2) a subset of those patients for whom the coronary angiography revealed no CAD (stenosis <10%) (n=4738). The two-stage FRS and IMRS score was compared to the IMRS using categorized risk groups based on the prediction of 1 year death. Area under the curves (AUCs) were calculated and the net reclassification improvement (NRI) was used to assess the improvement.

Results: The AUCs for the risk scores are in the Table. In both cohorts the two-stage approach had similar AUCs as the IMRS. In the entire and the CAD-free cohorts, the NRIs of the two-stage compared to IMRS were similar for both males and females.

Conclusion: Overall the IMRS was the best predictor of mortality; however, use of the FRS and IMRS in a two-stage approach provided similar prediction with advantage of not requiring IMRS lab tests for all patients. In primary care situations where the CBC and BMP are not always available, this approach stratifies mortality risk, without requiring lab tests, for all patients.

	Entire Cohort (95% CI)		CAD-free Cohort (95% CI)	
	Males	Females	Males	Females
AUC				
Two-Stage	0.74 (0.71, 0.77)	0.79 (0.75, 0.82)	0.75(0.66, 0.83)	0.73 (0.62, 0.83)
IMRS	0.77 (0.73, 0.78)	0.81(0.78, 0.84)	0.76 (0.69, 0.83)	0.77 (0.68, 0.86)
NRI				
Two-Stage vs IMRS	-0.4% (-1.4%, 0.5%)	0.1%(-1.4%, 1.7%)	-0.7% (-3.3%, 1.9%)	0.5% (5.7%, 4.6%)